

Verbesina pustulata, known only from its type material, is most closely related to *V. erosa*. The reader is referred to the discussion under that species.

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ESCOBARIA LEEI BÖDEKER REDISCOVERED IN NEW MEXICO

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This species was briefly described by Bödeker in 1933 as follows: "*Escobaria Leei* (Rose as *Mammillaria* 1924 No. 282) Böd. From New Mexico. Plants proliferating at the ground, only 15 mm. high and 5 mm. thick; spines numerous, white, up to 3 mm. long." Although Bödeker refers to a *Mammillaria* specimen No. 282 of J. N. Rose, we have been unable to locate any reference or description of this plant by Rose in the literature. Despite the obvious shortcomings of Bödeker's description, the name *E. leei* holds priority and we have decided to publish a detailed, meaningful description of the species on the basis of field and laboratory studies of numerous specimens.

In the U. S. National Herbarium is an herbarium sheet (US 72134) with the following information on the label: Rattlesnake Canyon, 30 miles southwest of Carlsbad, altitude 5500 ft., W. T. Lee, 1924. Attached to the herbarium sheet is a piece of notepaper which reads: "Found in Rattlesnake Canyon, 30 miles southwest of Carlsbad, New Mexico, at 5500 ft. elevation, growing on limestone ledges on north facing slopes. It is new. I have never seen it before. W. T. Lee."

FIG. 1. *Escobaria leei*

This sheet bears, in Rose's handwriting, the number 24,282 which was his greenhouse number and represents specimen 282 collected in the year 1924. Conrad Morton of the U.S. National Herbarium is of the opinion that, although there is no record of it, Bödeker may have visited the National Herbarium at some time while Rose was there and may very well have studied this specimen; he is convinced that this specimen is the basis for *Escobaria leei* (from a letter by S. G. Shetler to L. Benson, Feb. 9, 1965).

Also in the National Herbarium is a carton containing a whole plant consisting of a cluster of numerous small stems together with a slip of paper bearing the following annotation: "*Neom. Leei*", Carlsbad, N. Mex., 24,282, see *N. lasiacantha*, April 1925, Lee, 24,282. Thus, both the slip of paper and the carton plant tie in with the herbarium sheet by the same greenhouse number. The fact that Rose had marked this specimen as *Neomammillaria leei* indicates that he had considered describing it as a new species which, however, he never did.

Plants on the herbarium sheet (US 72134) and the carton specimen are designated as the lectotype of *E. leei*.

We recently found this species near the original collections site in Rattlesnake Canyon (fig. 1) about 30 miles southwest of Carlsbad, in the tributaries of this canyon and in Slaughter Canyon, at elevations of 4200 to 4800 feet, in the Guadalupe Mountains of southwestern New Mexico. We have studied the plants in situ and have grown them in our gardens (*Castetter & Pierce* 2397 through 2717, UNM).

ESCOBARIA LEEII Bödeker, Ein Mammillarien Vergleichs, Schlüssel 17, Neudam, Germany, 1933. Low growing plants usually forming densely spreading clumps bearing as many as 250 stems (usually not more than 100) formed by proliferation from the bases of stems of older plants and thus forming flat tufts or mats up to 15 cm in diameter; with most clumps, all stems remaining immature for a considerable period of time; mature stems as much as 7.5 cm long and 3 cm in diameter but usually not exceeding 3.5 by 1.7 cm; stems typically clavate, less frequently cylindric, the smallest ones subglobose and as little as 3 cm in diameter; aerial spiny portion of stem extending as much as 5 cm above ground level, densely white spiny, the lower part of the stem subterranean, bearing dry knobby tubercles although many spines on these tubercles remain intact; flesh of stem ranging from green to pale or deep dull magenta, firm, tough; root system mainly fibrous, but usually with a single moderately slender taproot which is connected to the original stem of the clump. Tubercles cylindric or nearly so, small, as much as 0.5 cm long by 2–3 mm wide, almost completely obscured by the dense spine clusters; some of the older tubercles grooved on the upper surface, the groove extending from the tip of the tubercle to $\frac{1}{2}$ or more of its entire length, short white woolly, with a dense woolly tuft at the base; aeroles circular to broadly elliptic in outline, densely white woolly becoming dark in age. Central spines irregular in length, but as much as 1 cm long, stout, straight, white to yellowish-brown tipped, varying in number from 6–22, 6 or 7 of them stouter than the others, and 1 of these, not necessarily the longest of the group, occupying a truly central position, porrect; most of the central spines depressed and subcentral in appearance; radial spines 40–85, white, very slender, irregular in length, some of them curved or twisted at the tip, both radial and subcentral spines disposed in an eccentric whorl; all spines on very young plants densely short white pubescent, those on older stems naked. Flowers funnelform, 1.7–2.0 cm long, 1.2–1.8 cm in diameter, overall color dull medium brownish-pink; outer perianth segments terminating in a short awn, the broad midstripe brown to greenish-brown, ciliate on the margins, bearing copious long white translucent, curled, twisted, kinked hairs on the upper $\frac{1}{2}$ – $\frac{3}{4}$ of the segment, some of them branched near the bases; inner perianth segments each ending in an abrupt short pointed tip, white, the broad midstripe rose to dull orchid with a brownish infusion; stigma lobes 4–6, short oblong, pure white. Fruit pale brownish-green to green with a pinkish cast, 1.2 cm long, about 0.5 cm in diameter, most of them bearing 1–several pubescent scales; perianth persistent; dry seeds nearly obovoid, more specifically asymmetrically pear-shaped on one side to somewhat kidney shaped on the other, alveolate, lustrous reddish-brown, about 1.25–1.5 mm long by 1 mm wide, hilum subbasal, flat.

Plants usually begin to bloom in their native habitat in mid-April to early May and continue to do so for several weeks, closing at night and opening about noon.

This species differs from all others of the genus in New Mexico in that the aerial portion of many of the medium-sized and smaller stems has a unique shape which may be described as blockish-spherical, a characteristic attributable to the fact that the central part of the aerole projects beyond the spine cluster, owing to most spines being depressed.

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NEW RECORDS OF MYXOMYCETES FROM CALIFORNIA I.

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A search of the pertinent literature, which consists of some eight papers dealing with slime molds of California, reveals that 154 species of Myxomycetes have been definitely recorded as occurring in California. Hagelstein (1944) listed additional species that have been reported, but he considered their authenticity questionable for various reasons. The largest collection was that of Plunkett (1934). He gave a list of 87 species, most of which were collected within a 50 mile radius of Los Angeles. The only papers dealing with Myxomycetes of Northern California were those of Cooke (1949) and Pratt and Pratt (1944). All of Cooke's collections were made on the slopes of Mt. Shasta and the Pratts collected their specimens within a 25 mile radius of San Francisco. Thus, essentially no Myxomycetes have been reported to date from the Sacramento Valley.

In the fall of 1964 I initiated a study of the Myxomycetes of California, and since have collected exclusively in Butte Co. Most of the collections listed below have come from Lower Bidwell Park, Chico. This is one of the few remaining areas in the Sacramento Valley that has not been disturbed for reasons of agriculture. Thus, it represents a particularly fruitful area and the species found here may have been abundant at one time throughout the Great Valley. In this first of a series of papers, 11 species of Myxomycetes are listed as new to the state in the sense that no report of their occurrence in California has been previously published. This brings the total number of slime molds found in California to 165 species.

All collections have been deposited in the Herbarium of the University of Michigan. The names of the organisms are those accepted by Martin (1949) and the numbers are my own.